Significant Breaches of the Forest Practices Code along the Power Line Corridor for the Kemess South Mine

Special Investigation 99002

FPB/SIR/04

June 2000

Summary

Introduction

On July 27, 1998, a member of the public complained to the Forest Practices Board that his water supply had been affected by clearing work on a right-of-way for a power transmission line to the Kemess South Mine in northeastern BC. During the investigation of the complaint, Board staff observed that there were many instances of apparent failures by Royal Oak Mines (the licensee) to comply with provisions of the *Forest Practices Code of British Columbia Act* and regulations (the Code). Board staff undertook an inspection of the entire power line corridor and staff concluded that there were many failures to comply with Code requirements and that these were causing significant harm to the environment. The failures were a significant breach of the Code.

On June 28, 1999, Board staff provided written notice, with details of the significant breaches, to the Forest Practices Board, the three ministers responsible for enforcing the Forest Practices Code (Forests; Environment, Lands and Parks; and Energy and Mines), senior staff of the three ministries and the licensee (Royal Oak Mines Inc.). This notification followed the procedure described in Section 4 of the *Forest Practices Board Regulation*. The Board assumes that the purpose of the requirement to promptly notify the ministers and licensee about significant breaches is to allow them to promptly address situations where there is significant environmental harm.

Decision to Initiate a Special Investigation

On July 30, 1999, the Board notified the licensee and the ministries that it was starting a special investigation under section 176 of the Act. This special investigation examined three issues:

1) compliance by the licensee with the Code requirements along the Kemess South Mine power line corridor;
2) government enforcement of the Code prior to the Board's reporting of the significant breaches; and
3) licensee compliance and government enforcement after the reporting of the significant breaches.

Overall Conclusion

The licensee failed to comply with the Forest Practices Code or with approved operational plans in many locations and in carrying out many forest practices both during and after clearing and construction of the 380 kilometre Kemess South Mine power line corridor. The many instances of non-compliance caused significant harm to the environment. The licensee significantly breached the Code.

Government did not effectively enforce the Code along the power line corridor. The Ministry of Forests did not enforce requirements of the logging plans. When the Ministry of Energy and Mines found non-compliance, it issued corrective orders under the *Mines Act* and then failed to enforce those orders. Ineffective enforcement allowed the licensee to continue to delay corrective actions for extended periods. This was a significant breach of government's enforcement duties under the Code.

Even after the significant breaches by the licensee were reported, the licensee's response was not adequate. Remedial work started, but most of the required work was not completed in 1999. Much work, especially relating to road maintenance, deactivation and environmental protection, remains to be done to meet Code obligations and address the environmental harm.

Government's response to the reporting of significant breaches was inadequate and uncoordinated. The Ministry of Energy and Mines re-issued previously ineffective compliance orders under the *Mines Act*. The Ministry of Forests continued to restrict enforcement to short access roads administered under special use permits and failed to enforce the requirements for stream protection, deactivation of roads and removal of temporary bridges along the power line right-of-way. The Ministry of Environment, Lands and Parks chose to severely restrict its involvement to offering technical advice. The government's response did not address the widespread non-compliance and environmental harm reported along the entire power line.

Despite the reporting of significant environmental harm associated with the power line right-of-way, there has still not been a thorough assessment of the full extent of the remedial work required. There has been no overall co-ordinated action plan by either the licensee or government to address the non-compliance.

Despite widespread non-compliance with Code requirements along the power line corridor, government has not pursued any of the various administrative remedies provided in the Code. The government has not issued remediation orders, levied penalties or attempted to use bonds posted for the project to complete the required works on the power line.

Recommendations

Considering the extent to which Code requirements have not been met or enforced and the resulting environmental damage, the Board makes the following recommendations in accordance with section 185 of the *Forest Practices Code of British Columbia Act* (the Act).

The Board recommends that:

1. The licensee meet its obligations on the Kemess South Mine power line project by completing and providing the following assessments and plans to the Ministry of Energy and Mines, Ministry of Forests, and Ministry of Environment, Lands and Parks (the three ministries) by June 30, 2000:

    - a comprehensive "road and trail maintenance and rehabilitation plan" for all the work required to bring the project into compliance with the Forest Practices Code (stabilization, erosion control, deactivation, and maintenance). This plan should

include both the power line right-of-way and SUP roads. It should include assessment of which roads, trails, and temporary bridges are required for future use. All roads, trails, and temporary bridges needed for future use should meet Code requirements. Any roads, trails and temporary bridges not needed for future use are to be assessed for remedial work and deactivation. The "road and trail maintenance and rehabilitation plan" should be prepared by a qualified registered professional;

- a "stream remediation plan" that identifies what measures should be taken to address the slash and debris in streams. The "stream remediation plan" should be prepared by a qualified registered professional; and

- an "action plan" that sets priorities and timelines for completion of all remedial, stabilization, erosion control, deactivation, and maintenance work that is identified in the "stream remediation plan" and "road and trail maintenance and rehabilitation plan."

2. The licensee meet its obligations on the Kemess South Mine power line project by completing all works according to the following schedule:

    - by October 31, 2000, unless otherwise prescribed in the "road and trail maintenance and rehabilitation plan" or "stream remediation plan," all works on areas requiring dry summer field conditions; and

    - by May 31, 2001, unless otherwise prescribed in the "road and trail maintenance and rehabilitation plan" or "stream remediation plan," all works on areas requiring winter field conditions.

3. The government address the widespread non-compliance and environmental harm reported along the entire power line using provisions in the Forest Practices Code. The three ministries should work co-operatively to accomplish the following by June 30, 2000:

    - ensure the licensee completes the "road and trail maintenance and rehabilitation plan," "stream remediation plan," and "action plan," as recommended by the Board;

    - ensure the licensee completes the works identified in the above mentioned plans as soon as possible;

    - create an "agency monitoring plan" to ensure that the government inspects all works in an appropriate and timely manner; and

- create a "contingency plan" that the government will use in the event that the licensee fails to carry out the required works. The contingency plan should ensure that the works are completed. The plan should consider administrative remedies provided by the Code and use of the project bonds if required to have the works completed by government at the licensee's cost.

4. The three ministries consider appropriate determinations and penalties for the non-compliance along the power line right-of-way and access roads. Consideration should include, but not be limited to, non-compliance identified in ministry inspection reports since 1997 and the significant breaches described in this report. Consideration should also be given to determinations and penalties under section 45 of the Act.

5. The government provide Forest Practices Code enforcement training to senior officials and field staff responsible for Code enforcement activities. Each of the three Code ministries should ensure this training results in appropriate coordinated Forest Practices Code enforcement by government.

In accordance with section 186 of the Act, the Board makes the following requests:

1. The three ministries advise the Board by June 30, 2000 of what actions have been taken to address recommendation 4.

2. The three ministries advise the Board when a copy of the plans referred to in recommendation 1 are received.

3. The three ministries provide the Board with a copy of the "agency monitoring plan", and the "contingency plan," specified in recommendation 3, by July 15, 2000.

4. The licensee provide the Board, by December 31,2000, with a summary of works completed during 2000 and works planned for 2001.

5. The three ministries advise the Board, by December 31, 2000, of how they have addressed recommendation 5.

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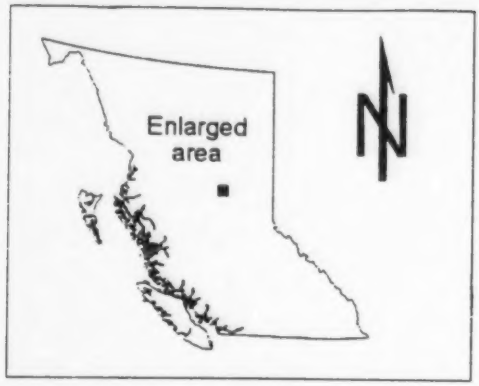
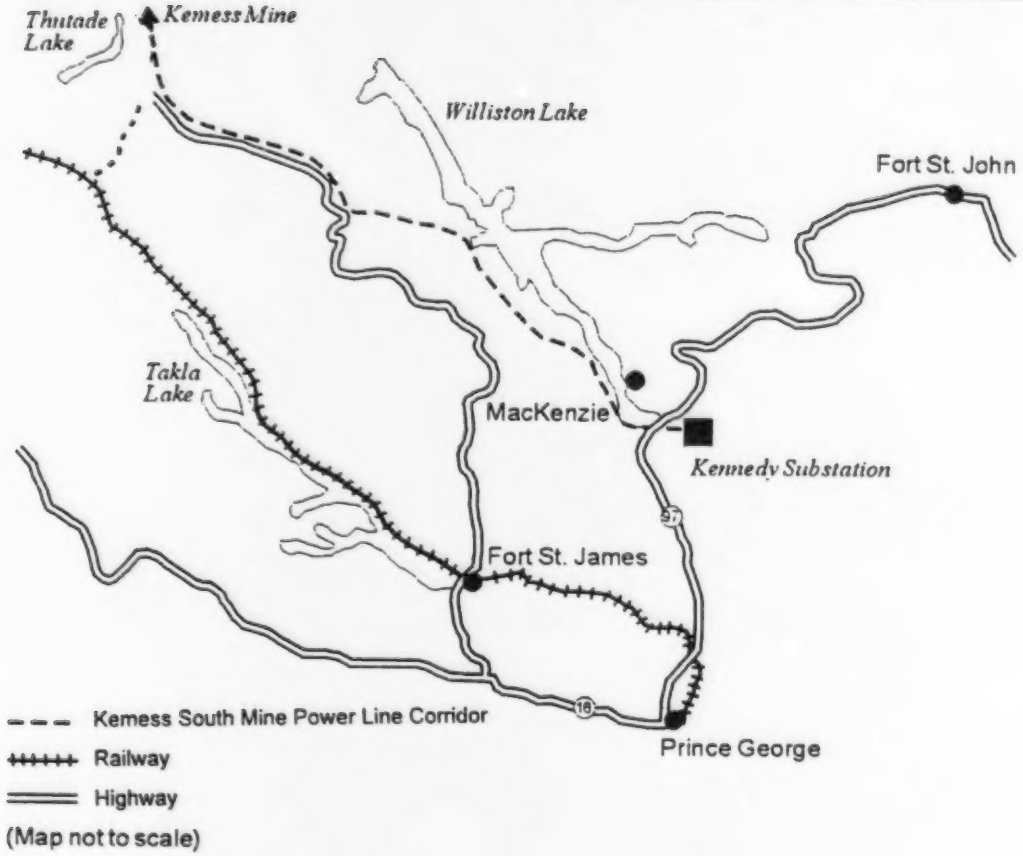
Kemess South Mine Power Line Corridor





The Investigation

The Kemess South Mine is a large gold and copper mine located near Thutade Lake, approximately 300 kilometres northwest of Mackenzie and 250 kilometres northeast of Smithers (see map). As part of the development of the mine, Royal Oak Mines Inc.[1], the licensee, began clearing a right-of-way[2] for a power transmission line to the mine in early 1997. The power line is 380 kilometres long and runs from Williston Lake near Mackenzie to the Kemess South mine site near Thutade Lake. Construction of the power line resulted in the removal of approximately 300 000 cubic metres of timber (some 10,000 logging truckloads) and the construction of 1,400 power transmission towers. The project resulted in a series of trails and temporary bridges in the power line right-of-way used for clearing and tower construction. The licensee also built a series of short roads to provide access to the power line right-of-way from existing industrial logging roads.

On July 27, 1998, a member of the public complained to the Forest Practices Board that his water supply had been affected by clearing work on the right-of-way for the power transmission line. The complaint involved one stream near the complainant's residence.

During the investigation of the complaint[3] in October 1998, Board staff noted failures to comply with the *Forest Practices Code of British Columbia Act* and regulations (the Code) in this one area. As the licensee had not complied with the Code in this area, staff inquired about the general operations on the entire power line. In the spring of 1999, after making inquiries with government agencies and the licensee, staff became concerned about the possibility of environmental harm occurring on the entire 380-kilometer power line. Consequently, Board staff undertook an inspection of the entire power line corridor with a professional engineer and a professional biologist. After considering the two consultant reports, Board staff concluded that there were many failures to comply with Code requirements and that these failures were causing significant harm to the environment. The failures were a significant breach of the Code.

Reporting of the Significant Breaches

On June 28, 1999, Board staff provided written notice, with details of the significant breaches, to the Forest Practices Board, the three ministers responsible for enforcing the Forest Practices Code (Forests; Environment, Lands and Parks; and Energy and Mines), senior staff of the three ministries and the licensee (Royal Oak Mines Inc.). This notification followed the procedure described in Section 4 of the *Forest Practices Board Regulation*. The Board assumes that the purpose of the requirement to promptly notify the ministers and licensee about significant breaches is to allow them to promptly address situations where there is significant environmental harm.

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[1] Royal Oak Mines Inc., the licensee, went into receivership in 1998. As of February 2000, Northgate Explorations Ltd. operates the Kemess South Mine.

[2] "Right-of-way" refers to the area underneath the power lines that was cleared for the construction of the power line and hydro towers. The right-of-way includes trails and bridges directly under and parallel with the towers.

[3] Effects of Power Line Clearing on Domestic Water Supply Near Thutade Lake in Northern B.C., Forest Practices Board, May 2000.

A "significant breach" of the Code is defined in section 1 of the *Forest Practices Board Regulation*. It is:

> ... a breach of one or more (Code) requirements that has caused or is beginning to cause significant harm to persons or the environment;
>
> or
>
> a breach of the government's enforcement duties ... that has caused or is beginning to cause significant harm to persons or the environment.

Determining that a breach is causing significant harm to persons or the environment involves a considerable degree of subjective judgement. In the Board's view, harm is an adverse change from an existing condition that affects persons or the environment. Significant harm is harm that is serious or widespread. A judgement of significant harm is based on consideration of the forest resources or values involved, their sensitivity to change, the extent of harm or change as a result of non-compliance, or the cumulative effects of numerous events of non-compliance.

In deciding that the non-compliance along the power line corridor was causing or was beginning to cause significant harm to persons or the environment, Board staff considered:

- the natural resource values along the entire power line corridor, particularly, the significant fisheries values described in the environmental impact assessment for the mine and power line project;
- the soil erosion and deposition of sediment into water bodies occurring because of a lack of maintenance along the skid roads and access roads for the power line;
- the blockages to stream channels caused by improper bridge installation along the corridor;
- the effects of logging slash and debris deposited into streams during the clearing operations;
- the deteriorating condition of roads caused by lack of maintenance or deactivation;
- the pervasiveness of the non-compliance; and
- the professional opinions of an engineer and a biologist.

In addition, Board staff considered the risk to public safety associated with soil erosion, landslides and damaged bridges along the power line corridor.[4]

[4] "Power line corridor" refers to both the power line right-of-way and the associated access roads coming from the industrial logging roads.

Decision to Initiate a Special Investigation

On July 30, 1999, the Board notified the licensee and the ministries that it was starting a special investigation under section 176 of the Act. This special investigation examined three issues:

4) compliance by the licensee with the Code requirements along the Kemess South power line corridor;
5) government enforcement of the Code prior to the Board's reporting of the significant breaches; and
6) licensee compliance and government enforcement after the reporting of the significant breaches.

This report concludes the special investigation.[5]

Kemess South Mine Power Line Project

Environmental Assessment Review

The construction of the power line and development of the mine was a major project. It went through a multi-agency review process under BC's *Environmental Assessment Act*. The project assessment committee recommended project approval[6] under that Act, but identified significant fish habitat values that might be affected by the construction of the power line. The power line crossed several rivers and numerous smaller streams important to Pacific salmon (sockeye, coho, and chinook) and trout (steelhead, rainbow and two blue listed species[7] - Dolly Varden and bull trout). Significantly, the project assessment committee concluded that aquatic resource values would be protected if the construction of the power line complied with the Forest Practices Code. The final report of the Kemess South project assessment committee stated, in section 5.3.2:

> The proponent to construct the transmission line in accordance with the requirement (sic) of the *Forest Practices Code of British Columbia Act*. Compliance with these regulations will provide adequate environmental protection from increased sediment loading to rivers, streams and lakes, protection of wetland and muskeg and other riparian vegetation.

The power line was part of a major mine development project and was declared part of the mine. However, the licensee was required to comply with requirements of the Forest Practices Code when harvesting trees, building roads and skid trails, installing culverts and bridges, and operating near streams while building the power line and access roads. The licensee also had to

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[5] The Kemess South Special Investigation Report was delayed by a court order under the *Company Creditors Arrangement* Act in Ontario. After the order expired on January 16, 2000, the Board was able to proceed with its report. The Board then provided potentially adversely affected parties an opportunity to make representations before completing this report.

[6] The final report, dated March 1996, is referenced in the Project Approval Certificate, M96-03.

[7] "Blue listed species" are those considered to be vulnerable in British Columbia. Such species are at risk, but are not endangered or threatened.

comply with Code requirements to maintain or deactivate the roads after the power line was built.

Code Requirements for the Project

The project approval certificate issued under the *Environmental Assessment Act* required the licensee to obtain all relevant permits and authorizations. The licensee obtained three licences to cut[8] from the Ministry of Forests. Under the *Forest Practices Code of British Columbia Act* each licence to cut required an approved logging plan for the clearing and harvesting of trees along the power line right-of-way. Those logging plans included the provisions for environmental protection under the Code that the project assessment committee insisted upon to protect the aquatic resource values. The logging plans contained provisions to protect streams and contained many measures for deactivation. These measures included access road deactivation, removal of all temporary bridges, re-sloping and re-contouring steep slopes to restore natural drainage patterns, and re-vegetating fine-textured soils that are prone to erosion. These measures had to be completed before August 31, 1998.

In addition, the licensee obtained special use permits[9] to authorize the construction of short roads that provided access to the power line right-of-way. Logging plans were not required for these roads but semi-permanent or permanent deactivation of the roads was required when access to the power line was no longer needed.

The *Forest Practices Code of British Columbia Act*, the *Operational Planning Regulation*, the *Timber Harvesting Practices Regulation* and the *Forest Road Regulation* set requirements for environmental protection during harvesting operations (within the logging plans), road construction, and road deactivation. These regulations stipulate that:

- timber, slash or debris must not be placed in watercourses;
- road construction must not result in hillsides or slopes becoming unstable;
- licensees must inspect and maintain roads;
- licensees must ensure that roads have proper ditches and culverts to avoid sediment transport into fish bearing streams; and
- when roads are no longer needed, licensees must ensure that culverts and temporary bridges are removed to restore natural drainage patterns.

[8] Licenses to cut are issued under the *Forest Act*.

[9] A different *Forest Act* tenure regulated short roads that provide access to the power line. Those roads were constructed under special use permits. Logging plans were not required for those roads.

Investigation Findings

Licensee compliance with the requirements of the Code

The licensee began clearing the power line right-of-way in January 1997. By the spring of 1998, as the hydro towers were being erected, the licensee had encountered financial difficulties and could not foresee completing all the outstanding requirements of the logging plans (removal of temporary bridges, soil stabilization, site rehabilitation, and deactivation) by the August 31, 1998, deadline set in the approved logging plans. On March 11 and 12, 1998, the licensee met with staff from the three regulatory ministries[10] to discuss the licensee's outstanding obligations. The Ministry of Environment, Lands and Parks understood that the licensee was willing to remove all the temporary skid bridges and deactivate access roads and trails in the coming months. Officials of that ministry deferred to the Ministry of Forests. In an e-mail to staff in the Ministry of Energy and Mines, staff of Environment, Lands and Parks stated: "as the Ministry of Forests district manager had prescribed the requirements, he would have the final say and would be the one to decide what variations to their licences would be allowed."[11]

In addition, the Ministry of Environment, Lands and Parks indicated immediate priorities for removal of:

1. structures with abutments or footings within the high water mark of any stream (to be removed by March 31, 1998);

2. structures in wet areas that would be difficult to access once break-up occurs;

3. structures where there is high potential for erosion/siltation type problems resulting from the approaches; and

4. structures that may span high-water marks/channels but are very low.

The licensee subsequently wrote to the Ministry of Forests on March 17, 1998, stating that it could not deactivate access roads or remove temporary bridges as required by the logging plans. The licensee's financial problems prevented it from spending the estimated $2.5 million required to meet the deactivation requirements. As an alternative, the licensee proposed to do only the most important work and to delay other remaining deactivation requirements. The licensee proposed to inspect the right of way and associated access roads to identify those structures with the highest urgency for removal. The licensee would use criteria to assign priority, as discussed during the March 11 and 12 meeting with government agencies.

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[10] Three ministries have the statutory responsibility to enforce the *Forest Practices Code of BC Act*: Forests; Environment, Lands and Parks; and Energy and Mines.

[11] March 11, 1998 e-mail from the Ministry of Environment, Lands and Parks.

Staff of both the Ministry of Environment, Lands and Parks and the Ministry of Energy and Mines did not object to the licensee's proposal to identify the structures most in need of deactivation work and to delay deactivation of the rest.

The licensee believed that the regulatory ministries agreed with the alternative of delaying deactivation on areas of lower priority. However, staff of the Ministry of Forests told Board staff that the ministry did not consent to that alternative and there are no documents that indicate that the ministry did agree with the change. The Ministry of Forests did not amend the logging plans to account for any delay. Board staff found no Ministry of Forests correspondence indicating agreement or disagreement, or any record of a revised date for deactivation. The Ministry of Forests did not communicate any agreement with, or rejection of, the proposed alternative to the licensee.

Finding #1:

When the licensee encountered financial problems, it proposed an alternative plan to identify and deactivate only the structures that most urgently required removal. The Ministry of Forests did not approve any change to the deactivation requirements in the logging plans.

By June 9, 1998, the licensee started to identify and deactivate the structures that most urgently required removal, but it failed to complete that work. The licensee did not inspect structures on 4 of the 18 sections of the right-of-way. In addition, the licensee did not deactivate all those structures on the remaining 14 sections that it had identified as needing removal or deactivation. Of the 380 kilometres of power line, the licensee only deactivated roads and structures on the southern-most 30 kilometres (about eight percent) of the right-of-way, plus two small isolated sections. The licensee completed that work on June 15, 1998. The licensee did not undertake actions to deactivate or at least stabilize all of the areas in the 18 sections of the right-of-way that the licensee had identified as high hazard areas that needed immediate attention.

Finding #2:

The licensee did not fulfill the logging plan requirements to complete the deactivation works by August 31, 1998. As well, the licensee did not undertake stabilization work on high hazard areas it had identified as needing immediate attention.

On June 1, 1999, Board staff and a registered professional engineer carried out a general examination of the right-of-way. Staff decided that a more detailed inspection was warranted. On June 16 and 17, another inspection of the entire power line corridor was carried out with two consultants: a registered professional biologist and the registered professional engineer. This inspection examined the power line corridor for indications of serious environmental harm due to non-compliance with the Code. There were many indications that the licensee had exercised care in constructing the power line, particularly early in the construction phase of the project. However, Board staff also discovered many instances of significant non-compliance, including many examples of harm to the environment, which were considered significant breaches of the Code.

The 380-kilometre power line consists of 18 sections. The following sections had significant breaches of Code requirements and were reported to the three ministers:

1) Skid bridges on the entire 380-kilometre power line

The logging plans required removal of the skid bridges upon completion of hydro tower construction, with deactivation to be completed no later than August 31, 1998. However, more than a year after construction was completed, Board staff recorded 169 skid bridges still in place between line section 5-3 and line section 18-2, a distance of 280-kilometres. Board staff observed that other skid bridges also remained in place elsewhere along the line, but they did not count them. Most of the observed bridges were not able to accommodate the passage of large debris and were susceptible to being washed out. Many were too short to span channel banks. Such bridges were supported on sill logs that were within the stream channel.

Board staff determined that silt draining off poorly maintained or improperly constructed road surfaces, sill logs disturbing stream channels, and soil being deposited into, or transported to, streams because of the lack of bank armouring were creating significant harm to the environment. The majority of the right-of-way had not been maintained since June 1998, a year previous. The Project Assessment Committee Final Report identified significant fish habitat values that might be affected by the power line and associated clearing. The power line crossed several rivers important to salmon and trout. Although most of the individual skid bridges were a minor problem, the cumulative effect of leaving so many temporary skid bridges in place along the entire length of the power line for over one year was significant. Board staff determined that the cumulative effect of the bridges and associated non-compliance was beginning to cause significant harm to the streams and was a significant breach of the following Code requirements:

Sections 45, 63, 64 and 67 of the *Act;* and

Sections 13 and 18 of the *Forest Road Regulation*.

2) Slash and debris deposition in streams within the 380-kilometre power line right-of-way

The licensee did not conduct a fish inventory on the streams affected by the power line. Some of the streams were known to be fish-bearing, and others were low gradient, so the Code required that they be classified and treated as fish-bearing. The Code requirements for fish-bearing streams were not followed. Board staff observed more than 50 streams along the right-of-way that contained felled trees, logs or slash. Board staff considered that the deposition of slash and debris contributed sediment and organic matter to streams and also disturbed stream channels and banks. In addition, the debris could modify stream flow in the future. As noted previously, the Project Assessment Committee Final Report identified significant fish habitat values along the right-of-way. As was the case for skid bridges, each individual instance of slash and debris deposition considered in isolation was not significant; however, Board staff determined that the cumulative effect of the observed amounts of debris in so many streams, being left for over one year, created significant harm to the environment and was a significant breach of the following Code requirements:

Sections 45, 63, 64 and 67 of the *Act;*

Sections 13 and 18 of the *Forest Road Regulation;* and

Sections 10, 12 and 23 of the *Timber Harvesting Practices Regulation.*

3) Line sections 6-3, Manson River

The logging plans and the Code required the licensee to maintain drainage structures and natural drainage patterns along the power line. Two temporary bridges constructed over channels adjacent to Manson River were resting on the channel bottom, well below the present water level. Manson River was classified as an S1 stream[12] and was known to be fish-bearing. The bridges' approach sills and fills were located inside the stream channel. Fills consisted of logs and erodable material that had been placed in the channel. On the larger crossing, encroachment extended for 5 metres into the stream. The bridge, resting on the channel bottom, prevented fish passage to a kilometre of habitat. In Board staff's opinion, the creation of a barrier to fish and the deposition of erodable material into the streams caused significant harm to the environment and was, therefore, a significant breach of the following Code requirements:

Sections 45, 63, 64 and 67 of the *Act;*

Sections 12 and 18 of the *Forest Road Regulation;* and

Section 12 of the *Timber Harvesting Practices Regulation.*

4) Line Section 11-2, Jim May Creek

The licensee was required by the logging plans and the Code to maintain drainage structures and natural drainage patterns along the power line. Jim May Creek was classified in the logging plan as a S2 stream.[13] The bridge over the creek was too short and was so low that it would block any large debris from passing underneath. Trees that had already been felled into the riparian area upstream from the bridge would probably move downstream over time. Large debris would accumulate on the upstream side of the bridge and, given the low clearance between the bridge deck and stream surface, any seasonal peak flows would probably dislodge the bridge into the creek. In addition, one channel of the creek was actively eroding the roadbed. In Board staff's opinion, creation of the debris barrier, deposition of trees into the creek and the failure to control surface drainage were beginning to cause significant harm to the environment and was a significant breach of the following Code requirements:

Sections 45, 63, 64 and 67 of the *Act;*

Sections 12, 13 and 18 of the *Forest Road Regulation;* and

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[12] The Forest Practices Code classifies streams, in part, on the basis of the average channel width and the presence of fish. S1 streams contain fish and have a channel width greater than 20 metres. Different management practices are required for each classification. S1 streams are generally given the maximum level of protection under the Code.

[13] S2 streams contain fish and have a channel width of between 5 and 20 metres.

Sections 10, 12 and 21 of the *Timber Harvesting Practices Regulation.*

5) Line section 9-2, Osilinka River

This section included an area of unstable soils. Several slumps and slides had occurred over a distance of 600 to 700 metres. The slides were filling in ditches along access roads, so further erosion and slope instability were likely. This road is called Frog Pond Road and it provides general public access to several cutblocks in tenures held by other parties. Roads and trails were unsafe for the public. Encroaching erosion was undercutting footings of one of the guy-wires supporting a transmission tower. In Board staff's opinion, the erosion had caused significant harm to the environment and was beginning to cause a risk of significant harm to persons. That was a significant breach of the following Code requirements:

Sections 45, 63 and 64 of the *Act;*

Sections 12, 13 and 18 of the *Forest Road Regulation;* and

Sections 12, 13 and 14 of the *Timber Harvesting Practices Regulation.*

6) Line section 11-2, Osilinka River Junction

This section had unstable road cuts under the power line that created a landslide 8 metres wide and 60 metres long. The landslide had dumped debris through a planted area in a 20- to 30-metre wide band down a 200-metre slope, ending at an access road. The landslide affected productive forest and created significant environmental harm and a public safety risk. That was a significant breach of the following Code requirements:

Sections 45, 63 and 64 of the *Act;*

Sections 12, 13 and 18 of the *Forest Road Regulation;* and

Sections 12, 13 and 14 of the *Timber Harvesting Practices Regulation.*

Finding #3

The licensee failed to comply with the Forest Practices Code and with approved operational plans during and after clearing and construction of the 380-kilometre right-of-way for the power line. Specifically, the licensee failed to protect the environment by failing to adequately deactivate and maintain roads and by failing to remove at least 169 skid bridges. The licensee deposited timber, slash and debris into more than 50 streams and caused slumps and slides in unstable terrain, creating environmental damage and a safety risk. The licensee failed to monitor, inspect or maintain roads, failed to adequately control surface drainage and allowed sediment transport into fish-bearing streams.

Finding #4

The failures to comply with the Code requirements at many locations caused significant harm to the environment and were significant breaches of Code requirements.

Government enforcement prior to the Board's reporting of significant breaches

At the start of the mine project, representatives of the Ministry of Forests, the Ministry of Energy and Mines and the Ministry of Environment, Lands and Parks discussed enforcement[14] of the Code on the right-of-way operations. The Ministry of Energy and Mines was to act as the lead agency. It agreed to conduct regular inspections of the power line and to forward inspection reports to the Ministry of Forests. The Ministry of Forests also agreed to monitor the power line to ensure compliance with the logging plans and the Code.

It was agreed that Ministry of Energy and Mines would report any serious contraventions of the approved logging plans or the Code, which were detected during its inspections, to both the Ministry of Forests and the Ministry of Environment, Lands and Parks within 24 hours of discovery. After notification, staff from both agencies would decide which was the most appropriate agency to respond. In addition, the Ministry of Energy and Mines would keep the other ministries advised of ongoing investigations and any necessary enforcement actions resulting from contraventions of the logging plans or the Code.

Lastly, it was agreed that the Ministry of Environment, Lands and Parks would not conduct any inspections of timber harvesting, road construction, installation of towers, or in-stream works. If a critical environmental incident occurred, the Ministry of Environment, Lands and Parks would assist in field assessments, propose remedial actions and provide recommendations regarding enforcement.

The Ministry of Energy and Mines did routinely send inspection reports to the Ministry of Forests, and Ministry of Forests staff did inspect the clearing and forest harvesting activities along the right-of-way. However, this division of enforcement duties among the Code ministries was not effective. Board staff observed numerous examples where the licensee did not comply with Code requirements. Non-compliance activities of the licensee included depositing debris into streams, causing soil erosion and slumping, failing to control surface drainage and failing to remove temporary skid bridges. Effective enforcement should have prevented such situations from occurring or should have rectified them when they did occur.

[14] The term "enforcement" includes the full range of activities undertaken to ensure the Code is followed. This includes field monitoring and inspections, decisions about compliance and non-compliance, and punitive or remedial measures imposed. It also includes key aspects of the Code, such as operational plans, that affect government's ability to enforce the Code. Thus, enforcement includes both compliance and enforcement activities as described by the three Code ministries.

The Ministry of Forests stated that once harvesting on the power line right-of-way was completed, it limited compliance and enforcement activities to the roads accessing the right-of-way that are administered under special use permits. The ministry left enforcement of the outstanding requirements in the logging plans on the right-of-way to the Ministry of Energy and Mines.

In written representations to the Board, the Ministry of Forests argued that, in this case, there were many other factors beyond the control of the regulatory agencies that contributed to the non-compliance and environmental impacts that occurred. These included the significant delays in start-up that led to compressed timelines, seasonal constraints on operations that prevented timely completion of obligations, the licensee's lack of knowledge of, and experience with, the Code, and the unwillingness and inability of the licensee to fulfil compliance instructions and outstanding Code obligations.

In its submission, the Ministry of Forests stated:

> Ultimately, while regulatory agencies are responsible for taking enforcement actions that will have the greatest likelihood of preventing or correcting non-compliance, the "effectiveness" of enforcement is largely dependent on the ability and willingness of the licensee to respond to enforcement actions in a timely manner.

The Board is alarmed by this view of enforcement. Effective enforcement dictates that agencies increase enforcement activities when faced with circumstances such as the ministry described and when high value resources are at stake. The financial condition of licensees should not influence the enforcement of government statutes. Faced with extensive non-compliance on a large project and the existence of the factors that the Ministry of Forests has described, it was important for the ministries to develop and participate in a co-ordinated government enforcement program and take effective action to ensure that compliance with Code requirements, and protection of the environment, were achieved.

Finding #5

The extensive non-compliance with the Code, and the environmental harm that was evident in June 1999, indicate that government enforcement was not effective in preventing or correcting the non-compliance with the Code.

After timber harvesting along the right-of-way was completed in the spring of 1998, staff of the Ministry of Energy and Mines inspected sections of the right-of-way and detected many of the same problems subsequently identified by the Board. The Inspector of Mines issued orders to the licensee to correct problems. Those orders were made under the *Mines Act*, not the Code. The Board considered whether this was an effective way to achieve compliance with the requirements of the Forest Practices Code.

The power line was constructed as part of a mine development project, and as noted earlier was considered part of the mine. Thus, the licensee had to comply with requirements of the *Mines Act*. However, compliance with the Forest Practices Code was an explicit condition of the project approval certificate issued under the *Environmental Assessment Act*. The cutting of trees

and construction of roads and temporary bridges for the transmission line were carried out under the approved logging plans and, therefore, had to comply with the Code.

The Code contains a range of enforcement provisions that allowed the regional manager of mines, as a "senior official," to impose administrative remedies, remediation orders and stopwork orders[15] to deal with any problems he or his staff observed. If remedial work is not done, government can carry out the work and impose a fine on the licensee to reimburse government for the costs of doing so.[16] The *Mines Act* is more limited. Inspectors can list infractions and order remediation measures[17] only for hazards to persons or property, not the environment. The *Mines Act* provides for a stopwork order[18] but enforcement of such an order requires the existence of danger to persons or property.

In the Board's opinion, the enforcement options available to the regional manager of mines under the *Mines Act* were more limited than those under the Code. The use of Code provisions would have been a more effective and appropriate way to achieve Code compliance than use of enforcement measures under the *Mines Act*.

The final report of the Kemess South project assessment committee stated that the construction of the transmission line would comply with the *Forest Practices Code of British Columbia Act* and, in doing so, would provide adequate environmental protection. However, Ministry of Energy and Mines staff chose to use the *Mines Act* and not the Code for enforcement. They justified their choice on the fact that staff had received only limited training in the application of the Code. In addition, the ministry regional manager had no experience with exercising any powers under the Code.

In addition, the March 13, 1996, Kemess South Project Assessment Committee Final Report stated that the proponent (licensee) was required to prepare a de-commissioning plan for the power line and to post a suitable reclamation bond.

The Ministry of Energy and Mines refused to apply any of the approximately $12 million bond that was secured to ensure deactivation of the mine site, which includes the right-of-way. To make use of the bond, the ministry effectively suspends the mine's permit, shutting down all mine activities. The mine must then replenish the bond and reapply for its permit.

Additionally, the Ministry of Energy and Mines agreed that that the power line would form part of the mine site. As such, the mine reclamation bond would not be supplemented by another bond for obligations under the *Land Act* tenure (License of Occupation). The mine reclamation bond was deemed to be sufficient to cover any reclamation costs arising along the power transmission line.

In the circumstances, enforcement by the Ministry of Energy and Mines under the *Mines Act* did not result in compliance with the Code requirements. The first orders under the *Mines Act* were made in the summer of 1998. The licensee did not comply, and staff from the Ministry of Energy

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[15] Sections 117, 118 and 123.

[16] Section 118, subsections (3), (4).

[17] *Mines Act*, section 15.

[18] Section 15, subsection (5).

and Mines did not enforce those orders. Instead, they asked the licensee, in the fall of 1998, to submit a deactivation plan by March 31, 1999. The licensee failed to do that as well, although it did submit a stabilization program nearly two months after the deadline, on May 20, 1999. Ministry of Energy and Mines staff consistently declined to invoke their powers as "senior officials" under the Code. Ineffective enforcement by the Ministry of Energy and Mines contributed to the licensee delaying deactivation for at least a year.

Finding #6

Initially it was reasonable for the Ministry of Energy and Mines to use the legislation with which it was familiar. However, the project was approved with the requirement that environmental impacts would be minimized through compliance with the Code. The use of the *Mines Act* proved to be an ineffective way to achieve Code compliance.

A significant breach of the Code is not restricted to breaches by a licensee. The definition of a significant breach in the *Forest Practices Board Regulation* also includes "a breach of the government's enforcement duties ... that has caused or is beginning to cause significant harm to persons or the environment."

The test set out in the regulation is similar to that for the licensee: has a breach of enforcement obligations caused, or is it beginning to cause, significant harm to persons or the environment? In this case, the Board finds that the failure of the government to enforce requirements of the Code allowed conditions to persist that, by June of 1999, caused or were beginning to cause significant harm to the environment. That failure constituted a significant breach of the Code by government.

Finding #7

The Ministry of Energy and Mines and the Ministry of Forests were aware of the non-compliance with the Code but, except for some minor situations, failed to enforce the Code. That failure allowed conditions to persist that caused or began to cause significant harm to the environment. There was a significant breach by government of its enforcement duties under the Forest Practices Code.

Licensee compliance and government enforcement after the Board reported the significant breaches

On June 28, 1999, when Board staff determined that there were significant breaches of the Code along the power line corridor, they notified the ministers of Forests; Environment, Lands and Parks; and Energy and Mines as well as senior staff of the three ministries and the licensee. The Board anticipated that the identification and reporting of significant breaches would induce the licensee and government into taking prompt corrective action.

The Board also expected that all three regulatory agencies would immediately review their past approach to monitoring and enforcement and improve their monitoring and enforcement

activities in order to ensure that the lack of compliance that had caused the significant breaches would be corrected in a very short time.

The Board asked to be advised of the actions taken.

Licensee Response

Upon notification of the significant breaches, the licensee sought a contractor with Code experience to co-ordinate and oversee deactivation activities on the power line. However, it took until August 10, 1999, nearly six weeks, before a contractor was hired and corrective work on the right-of-way actually began. Three of the specific areas considered to be significant breaches had remained uncorrected for a year, even after the Ministry of Energy and Mines had issued orders under the *Mines Act* (in 1998 and again in 1999). The orders issued on June 28, 1999, required either immediate action, action by July 31, 1999, or action by August 5, 1999. No remedial work was even started until after the last date. The licensee concentrated its efforts on the areas identified by the Board as significant breaches and areas where the Ministry of Energy and Mines had issued orders to deactivate under the *Mines Act*.

Finding #8

On August 10, 1999, the licensee began to remedy the conditions that constituted the significant breaches reported by the Board on June 28, 1999. The licensee was issued orders under the *Mines Act*, in 1998 and again in 1999, to take corrective action on three of the same areas identified by the Board as significant breaches. The licensee failed to comply within the time limits specified in the *Mines Act* orders.

The licensee began works on the right-of-way on August 10, 1999, and the licensee's contractor continued until late October. The licensee undertook stabilization work, removed skid bridges, cross-ditched areas, and removed slash and logging debris from creeks. The licensee ensured that the contractor addressed the four specific areas described by the Board as significant breaches of the Code. The licensee specifically worked on the following areas:

- Line sections 6-3, Manson River
- Line section 11-2, Jim May Creek
- Line section 9-2, Osilinka River (the licensee states that the hydro tower is not in danger of toppling, but additional works are planned for 2000)
- Line section 11-2, Osilinka River Junction

The contractor produced a 1999 Stabilization Summary Report, dated November 8, 1999. The report details the works completed to date. As the licensee addressed the four specific locations of significant breach, they also undertook deactivation and maintenance activities near those areas.

However, the licensee did not complete the work required on the more than 169 skid bridges, nor on all the streams with slash and debris also identified as significant breaches. The report provides some additional notes detailing future works that are not completed. The notes establish that there are significant additional Code obligations outstanding. Because of

ineffective government enforcement, scope of the project, and late date of commencement, the licensee has not attended to all of the situations of non-compliance identified.

The November 8, 1999, report is not a complete analysis of works required for the entire right-of-way.

Finding #9

The licensee undertook some remedial work on four of the six areas where there were significant breaches. However, because of the scope of the project, the licensee did not completely address all the pervasive issues associated with the skid bridges and streams along the right-of-way. The licensee has not corrected all the non-compliance and environmental harm that occurred during the clearing of the right-of-way and the construction of the towers. Maintenance and remedial work is still required.

In its written representation to the Board, the licensee stated that it intends to continue with stabilization work begun in 1999. The licensee also stated that the 2000 program would not be constrained by first having to address high-risk areas, as was done in 1999. The licensee has not made commitments beyond basic stabilization. The licensee has significant outstanding obligations under the Code relating to protection of the environment, streams, road maintenance and road deactivation. These obligations are not fully identified in the 1999 Stabilization Summary Report.

Finding #10

The licensee states that it intends to continue with stabilization work begun in 1999. However, the obligation of the licensee under the Code goes beyond stabilization. The licensee has outstanding obligations under the logging plans and Code for road maintenance, deactivation, and environmental protection.

Government Response

At the time of the reporting of the significant breaches, government enforcement of any kind along the power line was complicated by court orders that reflected the financial difficulties of the licensee's parent company. On February 15, 1999, an Ontario Court issued an order giving the licensee's parent company protection from creditors under the *Companies' Creditors Arrangement Act*. The wording of the order, which had Canada-wide effect, was extremely broad. It suspended enforcement of some statutes, including the *Forest Practices Code of British Columbia Act*.

The Ministry of Energy and Mines had the order varied for worker safety reasons[19] on February 19, 1999. As a result, the *Mines Act* and the *Health, Safety and Reclamation Code* applied but the Forest Practices Code was suspended. Regulatory agencies understood that the court order prevented enforcement of the Code directly but, in a June 18, 1999, letter to the Board, The

[19] There was concern that the tailings dam for the Kemess Mine, if not completed, could collapse.

Ministries of Forests and Energy and Mines stated that they could indirectly enforce compliance with the Code along the power line right-of-way through the use of the *Mines Act*:

> ... under the (*Companies' Creditors Arrangement Act*) protection... MoF is presently unable to enforce administration remedies for the power line project infractions. However, the power line is designated a mine under the *Mines Act*.... The court has ordered that the *Mines Act* requirements for the project are still applicable. Therefore, this allows government (MEM/MoF) to enforce compliance with provisions (of the Code).

This letter outlines the two limitations of enforcement at the time. First, the Code was suspended and enforcement required use of the *Mines Act*. Second, the *Mines Act* only applied to the power line right-of-way, not the access roads. If government had considered the circumstances sufficiently urgent, it is the Board's opinion that it could have applied to further vary the court order so that the Forest Practices Code could have been used directly. However, government did not do so, even after Board staff had reported the significant breaches of the Code.

Finding #11

Enforcement of the Code was hampered by an Ontario Court order under the *Companies' Creditors Arrangement Act*. Government did obtain a variance of the court order for worker safety reasons, but failed to apply to vary the order to allow enforcement of the Forest Practices Code on the power line corridor. This was inappropriate given the reporting of significant breaches to the Code.

In response to the reporting of the significant breaches by Board staff, the Ministry of Energy and Mines inspected the site on June 28, August 18 and August 30, 1999. The Ministry of Energy and Mines issued 89 separate orders under the *Mines Act* to the licensee on June 28, 1999. Board staff interpreted each of the orders to reflect specific incidents of non-compliance with the Code. However, Board staff also noted that previous efforts to enforce the same orders under the *Mines Act* had been ineffective and these new orders did not amount to a significant change in strategy.

Ministry of Forests district staff inspected the right-of-way on June 28, 1999, with Ministry of Energy and Mines staff. Neither ministry took any enforcement actions under the Code on the right-of-way as a result of the inspection.

Despite the court order, the Ministry of Forests did continue with enforcement activities on the small access roads leading to the power line right-of-way that were under special use permits (SUP). On July 19, regional Ministry of Forests engineering staff inspected the small access roads but did not inspect the roads and streams along the right-of-way. The ministry requested deactivation prescriptions for those access roads. The ministry told the licensee that it was willing to use the security bonds posted by the licensee if the licensee did not meet its Code obligations for maintenance and deactivation. The ministry also indicated that it was investigating possible Code contraventions on the SUP roads.

The Ministry of Forests continued to fail to administer, monitor or enforce requirements of the logging plans and general environmental protection provisions of the Code along the power line right-of-way, despite evidence of non-compliance. Non-compliance was indicated by failure to remove temporary skid bridges, restore natural drainage channels, maintain roads and re-contour steep areas.

The Ministry of Forests maintained that the administration, monitor, or enforce along the right-of-way (as opposed to the access roads under SUPs) was the responsibility of the Ministry of Energy and Mines. Given the ineffectiveness of past enforcement efforts by the Ministry of Energy and Mines, continuation of divided responsibility between agencies was inappropriate.

On July 19, 1999, in response to the reporting of significant breaches, Ministry of Environment, Lands and Parks regional staff, with Ministry of Forests staff, also inspected the access roads leading to the right-of-way. The Ministry of Environment, Lands and Parks staff decided not to investigate non-compliance at the stream crossings along the power line corridor because they believed it would be difficult to prove impact on fish or to identify the responsible parties. In addition, staff felt that evidence would have limited value given the passage of time and limited information about fisheries values in the streams.

While those problems could limit the effectiveness of prosecution under the federal *Fisheries Act*, they would not prevent effective enforcement under the Code. Unlike provisions in the *Fisheries Act*, the Code has administrative penalties that do not require the establishment of proof of environmental harm. Ministry of Environment, Lands and Parks officials are fully empowered "senior officials" under the Code and the ministry has many Code enforcement options, including imposing penalties and remediation orders.[20] Evidence of non-compliance with the Code, in and of itself, can warrant penalties and/or remediation orders.

The Ministry of Environment, Lands and Parks also expected the Ministry of Forests and the Ministry of Energy and Mines to take the lead on any problems from clearing of the right-of-way. Prior to the Board's reporting of the significant breaches, the ministry's approach of focussing its enforcement efforts on the mine site and leaving enforcement along the power line corridor to other agencies was appropriate because of the agreement with the two other ministries. However, in the Board's view, the Ministry of Environment, Lands and Parks should have become more actively involved in Code enforcement after the Board reported the significant breaches and provided information that significant harm to the environment was occurring along the power line corridor. The ministry has a responsibility for streams and riparian management, soil conservation and general protection of the environment, and should have used its expertise and enforcement powers under the Code to help resolve the reported problems.

Enforcement of the Forest Practices Code is the responsibility of all three government ministries. The intent is not to have three ministries always operating jointly or all independently. The intent is for them to co-ordinate efforts as necessary to ensure that the objectives and requirements of the Code are met and that all areas covered by the Code are adequately enforced in the field.

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[20] Remediation Orders: A senior official may issue an order to carry out a forest practice or to repair any damage caused by a contravention.

On the Kemess South Mine power line project, there was an initial joint understanding, or an overall approach, between the three Code ministries to co-ordinate efforts. Despite this understanding, the approach taken was for each ministry to address only those particular parts and phases of the project with which they were most familiar, and to use legislation with which each had most experience. In the Board's view, this was particularly inappropriate on a large project, where project approval specifically relied on compliance with, and enforcement of, Code requirements to protect important environmental values.

Even after the Board reported significant breaches of the Code and provided information about significant harm to the environment, the three ministries continued to operate independently. Although the ministries jointly inspected the power line, enforcement was executed in isolation. The Ministry of Energy and Mines continued to rely on provisions of the *Mines Act* that had already proven ineffective. The Ministry of Environment, Lands and Parks investigated whether it could prosecute under the *Fisheries Act* and decided it could not. The Ministry of Forests confined its investigation to the access roads constructed under special use permits. The Board found nothing to indicate that the three ministries jointly considered a coordinated effort to combine their expertise and resources, to prioritize the problems and to choose the most effective approach to achieve results.

To date, although the ministries acknowledge that there is widespread non-compliance, there have been no penalties levied for Code contraventions. The Board has been advised that three investigations into non-compliance on the access roads are open. Government does not appear to be pursuing any enforcement options, under the Code, along the power line right-of-way. The three ministries have not provided clear instructions to the licensee regarding its outstanding obligations for maintenance, soil stabilization, deactivation and protection of the environment, as provided under both the logging plans and the *Forest Practices Code of British Columbia Act*.

Finding #12

After the significant breaches were reported, the Ministry of Energy and Mines continued to issue orders under the *Mines Act* even though such orders had previously proven ineffective.

The Ministry of Forests continued to limit its compliance and enforcement activities to special use permit roads accessing the right-of-way and failed to enforce the requirements of the logging plans along the right-of-way.

The Ministry of Environment, Lands and Parks continued its approach of leaving the enforcement of activities along the power line corridor to the ministries of Forests and Energy and Mines.

Overall, government's response to the reporting of the significant breaches was inadequate and inappropriate to address the problems. The enforcement was ineffective.

Board Comments on Code Enforcement

Government 's approach to enforcing the Code on the Kemess South Mine power line project corridor is a clear example of many of the findings reached in the Board's December 1999 audit report entitled *An Audit of the Government of British Columbia's Framework for Enforcement of the Forest Practices Code.*

That audit examined government's overall organization and programs used to enforce the Code. Although the audit did not assess the appropriateness of enforcement activities, it did reach conclusions regarding how adequately government has structured itself to conduct Code enforcement. This special investigation on the Kemess South Mine power line project has confirmed that many of the organizational shortcomings identified in the audit have led to ineffective enforcement of the Code, resulting in environmental harm.

Specific concerns raised in the enforcement framework audit that were also noted to have contributed to Code enforcement problems in the Kemess South Mine power line project are:

- inadequate inter-ministry coordination of enforcement activities;
- use of legislation that is less effective for enforcement than the Code;
- inconsistent approaches to enforcement activities;
- inadequate measures to evaluate enforcement performance and identify improvements; and
- insufficient Code training for Ministry of Environment, Lands and Parks and Ministry of Energy and Mines enforcement staff.

In the Board's view, these organizational shortcomings must be addressed if Code enforcement on the South Kemess Mine power line is to be effective.

Conclusions

1. The licensee failed to comply with the Forest Practices Code or with approved operational plans in many locations and in carrying out many forest practices both during and after clearing and construction of the 380-kilometre Kemess South Mine power line corridor. The many instances of non-compliance caused significant harm to the environment. The licensee significantly breached the Code.

2. The government did not effectively enforce the Code along the power line corridor. The Ministry of Forests did not enforce requirements of the logging plans. When the Ministry of Energy and Mines found non-compliance, it issued corrective orders under the *Mines Act* and then failed to enforce those orders. Ineffective enforcement allowed the licensee to continue to delay corrective actions for extended periods. This was a significant breach of government's enforcement duties under the Code.

3. Even after the significant breaches by the licensee were reported, the licensee's response was not adequate. Remedial work started, but most of the required work was not completed in 1999. Much work, especially relating to road maintenance, deactivation and environmental

protection, remains to be done to meet Code obligations and address the environmental harm.

4. Government's response to the reporting of significant breaches was inadequate and uncoordinated. The Ministry of Energy and Mines reissued previously ineffective compliance orders under the *Mines Act*. The Ministry of Forests continued to restrict enforcement to short access roads administered under special use permits and failed to enforce the requirements for stream protection, deactivation of roads and removal of temporary bridges along the power line right-of-way. The Ministry of Environment, Lands and Parks chose to severely restrict its involvement to offering technical advice. The government's response did not address the widespread non-compliance and environmental harm reported along the entire power line.

5. Despite the reporting of significant environmental harm associated with the power line right-of-way, there has still not been a thorough assessment of the full extent of the remedial work required. There has been no overall co-ordinated action plan by either the licensee or government to address the non-compliance.

6. Despite widespread non-compliance with Code requirements along the power line corridor, government has not pursued any of the various administrative remedies[21] provided in the Code. The government has not issued remediation orders, levied penalties or attempted to use bonds posted for the project, to complete the required works on the power line.

Recommendations

Considering the extent to which Code requirements have not been met or enforced and the resulting environmental damage, the Board makes the following recommendations in accordance with section 185 of the *Forest Practices Code of British Columbia Act* (the Act).

The Board recommends that:

1. The licensee meet its obligations on the Kemess South Mine power line project by completing and providing the following assessments and plans to the Ministry of Energy and Mines, Ministry of Forests, and Ministry of Environment, Lands and Parks (the three ministries) by June 30, 2000:

    - a comprehensive "road and trail maintenance and rehabilitation plan" for all the work required to bring the project into compliance with the Forest Practices Code (stabilization, erosion control, deactivation, and maintenance). This plan should include both the power line right-of-way and SUP roads. It should include assessment of which roads, trails, and temporary bridges are required for future use. All roads, trails, and temporary bridges needed for future use should meet Code requirements. Any roads, trails and temporary bridges not needed for future use are to be assessed for remedial work and deactivation. The "road and

[21] Administrative remedies under the Code include penalties, remediation orders, and stopwork orders.

trail maintenance and rehabilitation plan" should be prepared by a qualified registered professional;

- a "stream remediation plan" that identifies what measures should be taken to address the slash and debris in streams. The "stream remediation plan" should be prepared by a qualified registered professional; and

- an "action plan" that sets priorities and timelines for completion of all remedial, stabilization, erosion control, deactivation, and maintenance work that is identified in the "stream remediation plan" and "road and trail maintenance and rehabilitation plan."

2. The licensee meet its obligations on the Kemess South Mine power line project by completing all works according to the following schedule:

    - by October 31, 2000, unless otherwise prescribed in the "road and trail maintenance and rehabilitation plan" or "stream remediation plan," all works on areas requiring dry summer field conditions.

    - by May 31, 2001, unless otherwise prescribed in the "road and trail maintenance and rehabilitation plan" or "stream remediation plan," all works on areas requiring winter field conditions.

3. The government address the widespread non-compliance and environmental harm reported along the entire power line using provisions in the Forest Practices Code. The three ministries should work co-operatively to accomplish the following by June 30, 2000:

    - ensure the licensee completes the "road and trail maintenance and rehabilitation plan," "stream remediation plan," and "action plan," as recommended by the Board;

    - ensure the licensee completes the works identified in the above mentioned plans as soon as possible;

    - create an "agency monitoring plan" to ensure that the government inspects all works in an appropriate and timely manner; and

    - create a "contingency plan" that the government will use in the event that the licensee fails to carry out the required works. The contingency plan should ensure that the works are completed. The plan should consider administrative remedies provided by the Code and use of the project bonds if required to have the works completed by government at the licensee's cost.

4. The three ministries consider appropriate determinations and penalties for the non-compliance along the power line right-of-way and access roads. Consideration should include, but not be limited to, non-compliance identified in ministry inspection reports since

1997 and the significant breaches described in this report. Consideration should also be given to determinations and penalties under section 45 of the Act.

5. The government provide Forest Practices Code enforcement training to senior officials and field staff responsible for Code enforcement activities. Each of the three Code ministries should ensure this training results in appropriate coordinated Forest Practices Code enforcement by government.

In accordance with section 186 of the Act, the Board makes the following requests:

1. The three ministries advise the Board by June 30, 2000 of what actions have been taken to address recommendation 4.

2. The three ministries advise the Board when a copy of the plans referred to in recommendation 1 are received.

3. The three ministries provide the Board with a copy of the "agency monitoring plan," and the "contingency plan," specified in recommendation 3, by July 15, 2000.

4. The licensee provide the Board, by December 31, 2000, with a summary of works completed during 2000 and works planned for 2001.

5. The three ministries advise the Board, by December 31, 2000, of how they have addressed recommendation 5.